

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 92-035

WASTE DISCHARGE REQUIREMENTS FOR:

NAPA PIPE CORPORATION
CLASS II WASTE MANAGEMENT UNIT
SITE 1
NAPA, NAPA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

Facility and Site Description

1. Napa Pipe Corporation, a wholly-owned subsidiary of Oregon Steel Mills, Inc. (hereinafter called the discharger), operates a steel pipe manufacturing facility which discharges wastewater from the pipe mill, the pipe internal coating operations and a portion of the surface storm water discharge to the Napa Sanitation District. The 152 acre facility is located at 1025 Kaiser Road at the corner of Kaiser Road and Basalt Road, and is bounded by the Napa River to the west and south, open land to the east and by business complexes to the north.
2. Site 1, of the facility, is the southwest fill area, bounded to the west by the Napa River, to the south by wetlands, and to the east by the Southern Pacific Railroad right-of-way. Low lying portions of Site 1 has received granular, porous, and permeable fill material, which is the upper hydrostratigraphic unit, consisting of silts, sands, gravels, bricks, black vitreous welding flux and mill scale. Priority pollutant metals have been detected at Site 1. Disposal of mill wastes at this site was discontinued in late 1979. A permit to fill a portion of the wetlands to accommodate a rail spur was issued by the U.S. Army Corps of Engineers in 1982. The discharger has recently completed the fill project. The discharger proposes to close Site 1 by installing an asphaltic cement cap, continuing to monitor the ground water in Site 1, and constructing a ground water collection trench capable of containment of contaminated ground water. An extraction facility will be installed and activated if necessary.

Related Orders

3. On December 12, 1990 the Board adopted Waste Discharge Requirements Order No. 90-154, NPDES No. CA0027928, which regulates storm water runoff and discharges from dry docks into the Napa River and its tributaries. On November 14, 1990 the Board adopted Site Cleanup Requirements Order No. 90-147, which regulates the implementation of an approved corrective action plan. On May 17, 1989 the Board adopted Waste Discharge Requirements Order No. 89-070, which regulated the closure of a pretreatment impoundment, conducting a site investigation and developing a corrective action plan.

Closure of the Surface Impoundment

4. The discharger submitted a certification dated December 17, 1990 entitled As-Built Report for Impoundment Closure. Approximately 9,000 cubic yards of sludge and contaminated soil, containing elevated concentrations of total petroleum hydrocarbons and metals, were removed from the impoundment for bioremediation and chemical fixation at the facility. The excavation was backfilled

with crushed stone, capped with base rock and asphalt and graded to drain away from the closed site. The remaining material essentially met cleanup goals established by the Board's staff's July 10, 1991 letter and therefore the Board finds that the discharger has closed the impoundment in an acceptable manner. Only three samples exceeded the cleanup goal of 100 mg/kg total petroleum hydrocarbons. The greatest concentration was 150 mg/kg of waste oil (diesel oil). The remaining material contained several samples of soluble chromium above the cleanup goal of 0.5 mg/l but less than 2.0 mg/l. However the more toxic hexavalent form was not detected in three representative samples and the remaining concentrations of the less toxic trivalent form was considered to meet the cleanup goal. The largest concentration of arsenic in samples of the remaining material was 8.2 mg/kg. The cleanup goal for total arsenic was 5 mg/kg. The soluble concentrations of arsenic in the remaining material was less than 0.5 mg/l. This was considered similar to background and therefore meets cleanup goals.

Contaminated Soil at the Facility

5. The discharger submitted a January 1990 Site Investigation Report. The investigation found soil contamination at several sites on the facility, including Site 1. At Site 1, a soil concentration of zinc at 5,500 mg/kg was reported in Boring 1A; this exceeded the total threshold limit concentration of 5,000 mg/kg for zinc. Soil concentrations of Barium at 19,000 mg/kg in EPA's Boring SS-03 and 78,000 mg/kg in the bottom of nearby Boring 1E (2.5 feet deep) exceeded the total threshold limit concentration of 10,000 mg/kg for barium. Generally soil with concentrations of contaminants in excess of total threshold limit concentrations are considered hazardous wastes. In most cases, the contamination in excess of total threshold limit concentrations was found at or near the surface of the ground. There were several base, neutral, acid extractable contaminants identified in soil borings 1A, 1D and 1F. In borings 1D and 1F the vertical extent of the base, neutral, acid extractable contaminants were not determined. Pyrene was detected in Borings 1A and 1G at 2.9 and 2.0 mg/kg, respectively.

Contaminated Ground Water at the Facility.

6. The discharger submitted a January 1990 Site Investigation Report. The investigation found ground water contamination at several sites on the facility, including Site 1. At Site 1, lead was found in ground water monitoring well MW-8 at 180 ug/l; the California MCL is 50 ug/l. At the end of 1990, lead was detected at a concentration of 85 ug/l, in MW-8. Barium was found in both ground water monitoring wells MW-7 and MW-8 at 1,100 ug/l; the California MCL is 1,000 ug/l. At the end of 1990, barium has been detected at concentrations of 93 and 460 ug/l in ground water monitoring wells MW-7 and MW-8, respectively. In late 1990, chromium was detected in MW-8 at 110 ug/l; the California MCL is 50 ug/l. The Discharger believes that, in most cases, metals were determined to be associated with particulate matter in the ground water, and has stated that in samples which were relatively free of particulate matter (suspended solids), metals were not a problem. Beginning with the first quarter of 1991, metals analyses from samples taken from MW-7 and MW-8 consistently have been non-detectable for lead and chromium, and below MCL's for barium. Total oil and grease was detected at 1.1 mg/l in deeper well DW-4. Currently total oil and grease has been detected at 1.0 and 1.2 mg/l at MW-7 and MW-8, respectively. 1,1 Dichloroethane was detected at 0.2 ug/l in MW-24; the California proposed MCL is 5 ug/l.

Hydrogeology of Site 1

7. The discharger submitted a January 1992 Site 1 Hydrogeologic Characterization and Ground water Modeling Study which identified three separate hydrostratigraphic units at Site 1. The shallow two units contain the shallow ground water zone. The shallowest unit consists of fill. The lower 1 foot of the fill is saturated, although the ground water level is seasonal. The ground water communicates

directly with the underlying units. The report concluded that there is shallow ground water underlying Site 1 that flows southward toward the wetlands and it is not influenced by marine tides. The hydraulic conductivity values range from 1×10^{-2} to 6×10^{-5} cm/sec. Underlying the fill is an organic clay with abundant, thinly interbedded peat and silty clay layer. This layer begins at a depth of approximately 5 feet below ground surface. Ground water exists in this zone and the hydraulic conductivity varies from 2×10^{-3} to 5×10^{-5} cm/sec. The deepest unit is the cemented clayey silt containing some sand and gravel inclusions. The cemented clayey silt is dense and in many cases dry but the sand and gravel inclusions contain water and have a hydraulic conductivity of 1×10^{-4} cm/sec. The inclusions may be hydraulically connected to the nearby Napa River.

Corrective Action Plan

8. The discharger submitted a November 1990 Corrective Action Plan and January 1991 revision. The plan recommended and proposed corrective actions for several sites of soil and ground water contamination, including Site 1. The proposed corrective action plan for Site 1 was further amended by January 1992 Site 1 Hydrogeologic Characterization and Ground water Modeling Study. The discharger proposes to provide a low permeability, asphaltic-cement pavement cap over the entire site, a earthen embankment along the wetlands-fill boundary at the southern end of Site 1, continued monitoring of the ground water elevation and quality in Site 1, and installation of a shallow ground water collection trench capable of containing and collecting contaminated ground water. An extraction facility will be installed and operated if and when required by this Order. Ground water modeling has shown that the collection trench can capture and collect all shallow ground water from Site 1. The discharger proposes to close the waste management unit and will not discharge any waste to the unit.

Variance to Class I Disposal

9. The discharger has requested a variance for the leaving hazardous wastes in place in Site 1 where a Class II waste management unit will be constructed. In the discharger's January 1992 letter report, it was noted that the variance is appropriate because the hazardous concentrations were detected infrequently and statistically are anomalous.

Engineered Alternative of Class II Standards

10. Site 1 is classified as a Class II waste management unit and is subject to the requirements of Chapter 15, Article 3, Title 23 of the California Code of Regulations. Section 2510(b) of Chapter 15 allows for consideration of alternative to the standards, only when the discharger has demonstrated that the standards are impracticable and, unreasonably and unnecessarily burdensome. In addition, the alternative design shall be specific engineered alternative consistent with the goals of the standard and affords equivalent protection against water quality impairment.
11. The proposed alternative design for Site 1 does not meet the prescriptive design standards of a Class II waste management unit because it does not include engineered liners and, leachate collection and removal system and existing conditions are such that there is less than 5 feet separation between the bottom of the proposed unit and the highest anticipated level of the shallow ground water.
12. Strict compliance with the Class II standards is impractical because the cost (\$12,000,000) of achieving Class II standard design is unnecessarily and economically burdensome. The proposed engineered alternative design (asphaltic cement cap and collection trench) is consistent with the performance goal of equivalent water quality protection. The cap will minimize water infiltration and the trench will have the capacity to collect contaminated ground water and control ground

water movement. The levee on the west side of the site and the railroad embankment on the east side were constructed on compacted clay and provide limited lateral containment for contaminated ground water.

13. Unless otherwise noted references to Chapter 15 are to Division 3, Title 23 of the California Code of Regulations.
14. Section 2550.2, Article 5 of Chapter 15 describes the criteria for establishing water quality protection standard. Constituents for which background concentration is to be established include metals listed in Section 66699, Article 11, Title 22 of the California Code of Regulations and base, neutral and acid extractable contaminants as well as total petroleum hydrocarbons.

Basin Plan

15. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on August 19, 1987. This Order implements the water quality objectives for the Napa River as stated in the Basin Plan.
16. The potential beneficial uses of the ground water in the area are:
 - a. Municipal Supply
 - b. Industrial Process and Service Supply
 - c. Agricultural Supply
17. Ground water is utilized for drinking water purposes in the area; there are two existing industrial process and service supply water wells on site, and are screened beginning at a depth greater than 400 feet below the ground surface.
18. The existing and potential beneficial uses of the Napa River are:
 - a. Municipal and Domestic Supply
 - b. Agricultural Supply
 - c. Navigation
 - d. Water Contact Recreation
 - e. Non-Contact Recreation
 - f. Warm Fresh Water Habitat
 - g. Cold Fresh Water Habitat
 - h. Wildlife Habitat
 - i. Preservation of Rare and Endangered Species
 - h. Fish Migration
 - j. Fish Spawning

California Environmental Quality Act

19. The adoption of this Order is exempt from the provisions of Chapter 3 (commencing with Section 2100) of Division 13 of the Public Resources Code (California Environmental Quality Act) due to the categorical exemption entitled "Minor Alterations to Land"; Section 15304, Title 14, California Code of Regulations.

Notifications and Meeting

20. The Board has notified the discharger and interested agencies and persons of its intent to prescribe

waste discharge requirements and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

21. The Board, in a public meeting, heard and considered all comments pertaining to the waste discharge requirements.

IT IS HEREBY ORDERED, that the discharger, and any other person(s) that operates this site, shall comply with the following:

A. Prohibitions

1. The treatment or storage of waste shall not cause pollution or nuisance as defined in Section 13050 of the California Water Code.
2. The treatment or storage of waste shall not degrade the quality of any usable ground water.
3. The discharge of wastewater onto land, into ground waters or surface waters is prohibited.

B. Specifications

1. During closure operations no wastes shall be placed in a position where they can be carried into the waters of the State. In addition, no waste shall be disposed at Site 1 prior to the completion of closure as a Class II waste management unit, except as permitted by the Executive Officer.
2. Surface drainage from tributary areas, and external drainage from surface and subsurface sources, shall be minimized during disposal operations and during the life of the landfill. The discharger shall ensure that runoff is diverted away from the disposal area, such that it does not contact waste or leachate.
3. Site 1 shall have a asphaltic cement pavement cap and a collection trench, and surface drainage system designed and operated to collect and remove any contaminants that might migrate offsite. These systems shall be designed in a manner acceptable to the Executive Officer, so as to prevent the migration or build-up of contaminated ground water in the landfill.
4. The discharger shall ensure that Site 1, and the structures which control ground water and surface water for this site, are constructed and maintained to withstand loads or enable repair from conditions generated during the maximum probable earthquake event critical to the site.
5. The discharger shall provide written evidence of a fund for closure of the landfill and an interim closure plan for the landfill.
6. The ground water sampling and analysis program shall ensure that ground water quality data are representative of the ground water in the area of the waste management unit and comply with Section 2550.7 (a) and (b) of Article 5, Chapter 15. The monitoring program shall comply with Chapter 15.
7. Active operation of the trench and construction of the extraction facility shall be implemented where water quality impairment has occurred, or upon determination that a statistically significant increase in indicator parameters has occurred during detection monitoring.
8. The discharger shall operate Site 1 so as not to cause a statistically significant difference to exist

between water quality at the compliance points and the Water Quality Protection Standards (WQPS) to be established. The discharger shall establish WQPS according to the requirements of this Order and Article 5 of Chapter 15. The concentrations of the parameters or waste constituent in waters passing through the points of compliance shall not exceed the WQPS.

9. The discharger shall install any additional ground water and surface runoff monitoring devices required to fulfill the terms of this Order.

C. Provisions

1. The discharger shall comply with the Prohibitions and Specifications above immediately upon adoption of this Order or according to the time schedule herein.
2. The discharger shall submit a ground water monitoring plan, acceptable to the Executive Officer, to detect any lateral or vertical migration of contaminants which could further contaminate ground water at the site. The report shall include a plan for the establishment of Water Quality Protection Standards.

REPORT DUE: No later than 1 July 1992.

3. The discharger shall submit a plan, acceptable to the Executive Officer, for implementation and measurement of the effectiveness of the extraction system, which includes the collection trench and the associated pumps and pipes.

REPORT DUE: No later than 1 August 1992.

4. The discharger shall submit a detailed Post Earthquake Inspection and Corrective Action Plan acceptable to the Executive Officer to be implemented in the event of any earthquake generating ground shaking of Modified Mercalli Intensity V (Richter 4) or greater at or near the landfill. The report shall describe the cap, trench, and surface drainage systems potentially impacted the static and seismic deformations of the landfill. The plan shall provide for reporting the results of the post-earthquake inspection to the Board within 24 hours of the occurrence of the earthquake. Immediately after an earthquake event causing damage to the landfill systems, the corrective actions plan shall be implemented and this Board shall be notified of any damage.

REPORT DUE: No later than 1 October 1992.

5. The discharger shall submit a As-Built Landfill Design Report acceptable to the Executive Officer. The report should address the construction of the various components of the landfill, including detailed specifications for construction of cap, trenches, extraction systems, and surface runoff controls.

REPORT DUE: No later than 1 March 1993.

6. The discharger shall submit a technical report, acceptable to the Executive Officer, a closure and post-closure maintenance plan pursuant to Title 23, CCR, Chapter 15, Article 9. The plan shall include but not be limited to, a certification of an irrevocable closure fund set aside for the closure of Site 1.

REPORT DUE: No later than 1 March 1993.

7. The discharger shall maintain a copy of this order at the site so as to be available at all times to site

operating personnel.

8. Unless otherwise specified, a separate report or a section may be added to the quarterly ground water monitoring reports, submitted by the discharger, in compliance with the Prohibitions, Specifications, and Provisions of this Order shall be submitted to the Board on the schedule specified herein. These reports shall consist of a letter report that includes the following:
 - a. A summary of work completed since submittal of the previous report and work projected to be completed by the time of the next report;
 - b. Identification of any obstacles which may threaten compliance with the schedule of this Order and what actions are being taken to overcome these obstacles;
 - c. In the event of non-compliance with any Prohibition, Specification or Provision of this Order, written notification which clarifies the reasons for non-compliance and which proposes specific measures and a schedule to achieve compliance. This written notification shall identify work not completed that was projected for completion, and shall identify the impact of non-compliance on achieving compliance with the remaining requirements of this Order; and,
 - d. In the first quarterly self-monitoring report, an evaluation of the current ground water monitoring system and a proposal for modifications as appropriate.
9. All submittals of hydrogeological plans, specifications, reports, and documents (except quarterly progress and self-monitoring reports), shall be signed by and stamped with the seal of a registered geologist, registered engineering geologist, or registered professional engineer.
10. All samples shall be analyzed by State certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control records for Board review.
11. The discharger shall maintain in good working order, and operate as efficiently as possible, any facility or control system installed to achieve compliance with the requirements of this Order.
12. Copies of all correspondence, reports, and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order, submitted by the discharger, shall also be provided to the following agencies:
 - a. Napa County Department of Environmental Management; and,
 - b. California EPA, Department of Toxic Substances Control.
13. The discharger shall permit the Board or its authorized representative, in accordance with Section 13267 (c) of the California Water Code, the following:
 - a. Entry upon premises in which any pollution sources exist, or may potentially exist, or in which any required records are kept, which are relevant to this Order;
 - b. Access to copy and records required to be kept under the terms and conditions of this Order;
 - c. Inspection of any monitoring equipment or methodology implemented in response to this Order; and,
 - d. Sampling of any ground water or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the discharger.
14. The discharger shall remove and relocate any wastes which are discharged at this site in violation

of these requirements.

15. The discharger shall file with this Board a report of any material change or proposed change in the character, location, or quantity of this waste discharge. For the purpose of these requirements, this includes any proposed change in the boundaries, contours, or ownership of the disposal areas.
16. The Board considers the property owner and site operator to have a continuing responsibility for correcting any problems within their reasonable control which arise in the future as a result of this waste discharge or water applied to this property during subsequent use of the land for other purposes.
17. These requirements do not authorize the commission of any act causing injury to the property of another or of the public, do not convey any property rights, do not remove liability under federal, state or local laws, and do not authorize the discharge of waste without the appropriate federal, state or local permits, authorizations, or determinations.
18. If any hazardous substance is discharged in or on any waters of the state, or discharged and deposited, or probably will be discharged in or on any waters of the state, the discharger shall report such discharge to the following:
 - a. This Regional Board at (510) 464-1255 on weekdays during office hours from 8 a.m. to 5 p.m.; and,
 - b. The Office of Emergency Services at (800) 852- 7550.

A written report shall be filed with the Regional Board within five working days and shall contain information relative to the following:

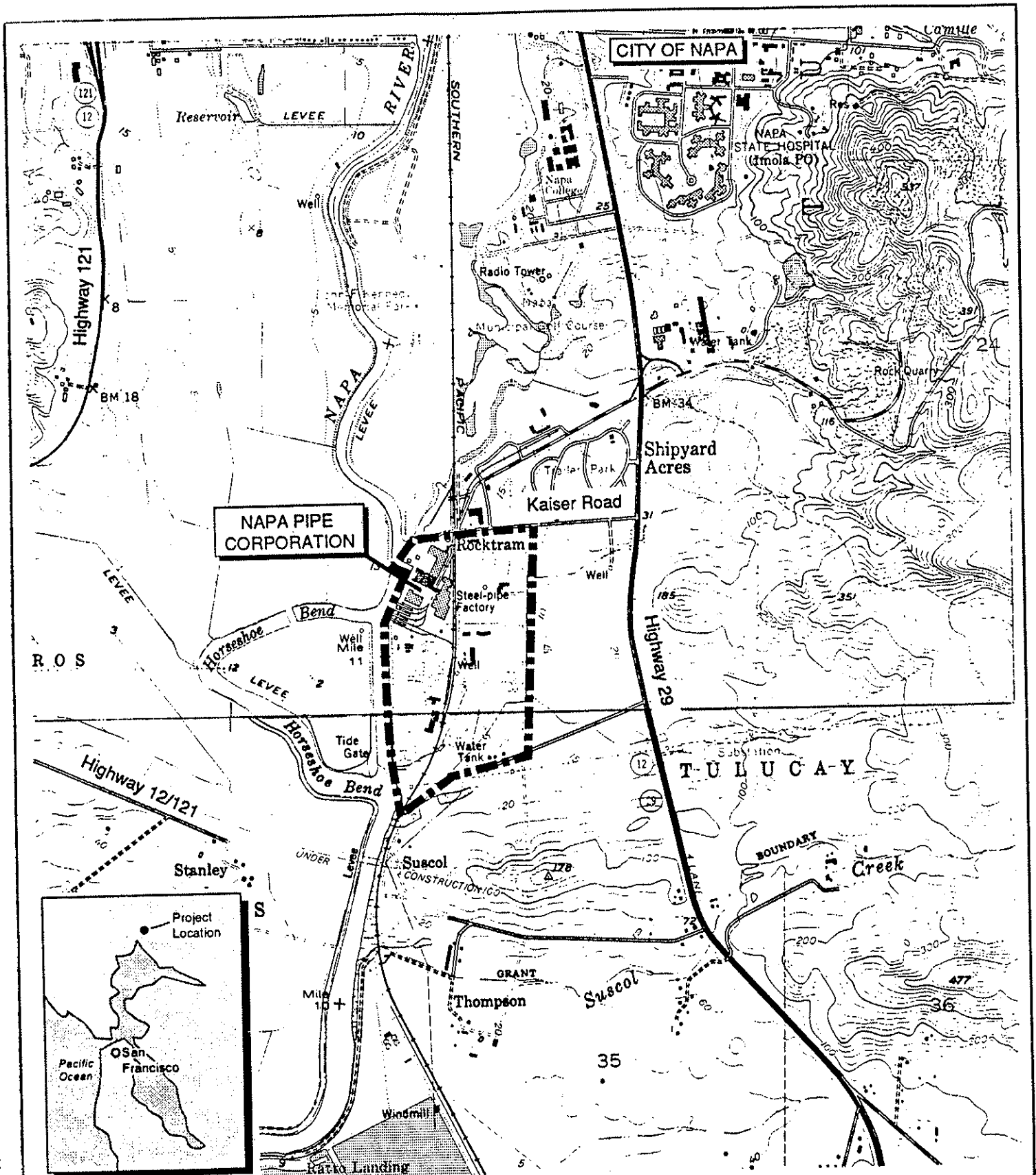
- (1) The nature of waste or pollutant;
 - (2) The quantity involved and the duration of incident;
 - (3) The cause of spill;
 - (4) The estimated size of affected area;
 - (5) The corrective measures that have been taken or planned, and a schedule of these measures; and,
 - (6) The persons/agencies notified.
19. The Board will review this Order periodically and may revise the requirements when necessary.
 20. If the discharger is delayed, interrupted or prevented from meeting one or more of the completion dates specified in this Order, the discharger shall promptly notify the Executive Officer and the Board shall consider revision to this Order.

I, Steven R. Ritchie, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on April 15, 1992.


Steven R. Ritchie
Executive Officer

Attachments:

Figure 1: Location Map



JMM James M. Montgomery
Consulting Engineers, Inc.

NAPA PIPE CORPORATION SITE LOCATION MAP

FIGURE 1

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SCALE IN MILES
USGS Topographic Maps. 7.5'. Napa and Cuttings Wharf CA Quads.